

MULTI-FUNCTIONAL CAP

Technical Field

The present invention relates to a multi-functional cap, and more particularly, to a multi-functional cap having an assistant visor that can be detached and can shield even portions that are not shielded by a visor 20 of an existing cap.

Background Art

10 Sunlight contains strong ultraviolet rays that stimulate the skin. In order to protect the face from the sunlight, a cap has been widely used. The cap has been developed to have various shapes while having a decoration function as well as the practical function and has become used worldwide.

15 A common cap that has been widely used usually except for caps for keeping warm includes a crown portion that is put on the head, and a visor 20 that is extended toward the front of the crown portion. This cap can protect a human from sunlight up to portions shielded by the visor 20. The visor 20 cannot be formed large due to a problem of 20 appearance. Therefore, there is a problem that the visor does not shield the whole face effectively since a range that can shield sunlight is not wide.

In order to solve the problem, a straw cap and a traditional

cylindrical Korean hat that has a wide visor were developed but are rarely used today. However, this can does not have beautiful appearance due to the wide visor. Further, this cap does not meet various tastes of customers since the visor is always extended.

5 Moreover, the cap has disadvantages that it is weak to wind, difficult to carry and inconvenient to use at a narrow space. Furthermore, some users use the cap with a towel or a scarf put around the cap. This cap also has disadvantages that it has bad appearance and is inconvenient to use.

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Disclosure of Invention

Accordingly, the present invention has been made in view of the above problems, and it is an object of the present invention to provide a multi-functional cap having an assistant visor that can be detached from 15 the cap and can shield the front and side of the face and the rear of the head.

Another object of the present invention is to provide a multi-functional cap that has various shapes, function and fixed means.

To achieve the above objects, according to the present invention, 20 there is provided a multi-functional cap including a crown portion formed to cover the head, and a visor extended from a crown portion, including: an assistant visor that is detachably coupled to the edge of the crown portion and the edge of the visor, wherein the assistant visor comprises

foldable visor units, and fixed units for fixing the assistant visor to the crown portion and the visor.

The visor units of the assistant visor are overlapped so that they can be extended against a plurality of hardened plastic plates or
5 hardened paper plates.

The visor units of the assistant visor are foldably overlapped with plate-like body such as textile or paper, wherein overlapping elements of an overlapping reference point is overlapped to become one point or multi-points.

10 The visor unit of the assistant visor comprises a plate-like body and supports for supporting the plate-like body, wherein one lateral end of the support is variably fixed to a rail unit detachably fixed to the edge of the crown portion.

15 The visor unit of the assistant visor comprises a plate-like body and supports for supporting the plate-like body, wherein one lateral end of the support is variably fixed to a rail unit detachably fixed to the edge of the crown portion.

20 The fixed unit of the assistant visor comprises a visor pinchcock unit that can be inserted into the edge of the visor 20, and a crown pinchcock unit that can be inserted into the edge of the crown portion.

The fixed unit of the assistant visor comprises an insertion groove into which an insertion pin integrally formed with the assistant visor can be inserted, and a pair of zippers having one side fixed to the surface of

the crown portion and the other side fixed to the assistant visor whereby the pair of the zippers can be coupled together.

The multi-functional cap further comprises a pair of Velcro papers that can be coupled together in order for the visor unit of the assistant visor to be connected to the edge of the visor unit.

The fixed unit of the assistant visor comprises an insertion groove into which an insertion pin integrally formed with the assistant visor can be inserted, and a pair of zippers having one side fixed to the surface of the crown portion and the other side fixed to the assistant visor whereby the pair of the zippers can be coupled together.

The rail unit of the assistant visor is detachably attached to the edge of the crown portion by means of the pair of the Velcro papers that can be coupled together.

Therefore, the present invention has an effect that it can provide a multi-functional cap having an assistant visor that can be detached from the cap and can shield the front and side of the face and the rear of the head.

Brief Description of Drawings

Further objects and advantages of the invention can be more fully understood from the following detailed description taken in conjunction with the accompanying drawings in which:

Fig. 1 is a plane view of a multi-functional cap to which an

assistant visor is attached according to an embodiment of the present invention;

Fig. 2 is a plane view showing a state where the assistant visor is folded in the multi-functional cap shown in Fig. 1;

5 Fig. 3 is a perspective view illustrating only the assistant visor used in Fig. 1;

Fig. 4 is a dismantled perspective view illustrating some of the assistant visor shown in Fig. 3;

10 Fig. 5 is a lateral cross-sectional view of the assistant visor shown in Fig. 3, which is taken around the shaft;

Fig. 6 is a perspective view illustrating only an assistant visor according to another embodiment of the present invention;

Fig. 7 is a perspective view illustrating only an assistant visor according to still another embodiment of the present invention;

15 Fig. 8 is a perspective view illustrating only an assistant visor according to still another embodiment of the present invention;

Fig. 9 is a dismantled perspective view illustrating a state where an assistant visor is coupled to a cap according to still another embodiment of the present invention;

20 Fig. 10 is a perspective view illustrating only the assistant visor used in Fig. 9;

Fig. 11 is a perspective view illustrating a state where the assistant visor shown in Fig. 9 is coupled to the cap and is then

extended;

Fig. 12 is a perspective view illustrating a state where the assistant visor is raised up and is then attached to the surface of the crown portion in the multi-functional cap shown in Fig. 11;

5 Fig. 13 is a dismantled perspective view illustrating a state where an assistant visor is coupled to a cap according to still another embodiment of the present invention;

Fig. 14 is a plane view showing a state where the assistant visor shown in Fig. 13 is coupled to the cap and is then extended;

10 Fig. 15 is a perspective view illustrating only an assistant visor according to still another embodiment of the present invention;

Fig. 16 is a dismantled perspective view illustrating a state where an assistant visor is coupled to a cap according to still another embodiment of the present invention;

15 Fig. 17 is a perspective view illustrating a state where the assistant visor is folded with it coupled to the cap in the multi-functional cap shown in Fig. 16;

Fig. 18 is a perspective view illustrating a state where the assistant visor is extended with it coupled to the cap in the multi-
20 functional cap show in Fig. 16;

Fig. 19 is a dismantled perspective view illustrating a state where an assistant visor is coupled to a cap according to still another embodiment of the present invention;

Fig. 20 is a plane view showing a state where an assistant visor is coupled to a cap according to still another embodiment of the present invention;

Fig. 21 is a dismantled perspective view illustrating a state where 5 an assistant visor is coupled to a cap according to still another embodiment of the present invention;

Fig. 22 is a plane view showing a state where the assistant visor shown in Fig. 21 is extended with it coupled to the cap; and

Fig. 23 is a perspective view illustrating main components of an 10 assistant visor according to still another embodiment of the present invention.

Best Mode for Carrying Out the Invention

The present invention will now be described in detail in connection with preferred embodiments with reference to the 15 accompanying drawings.

As shown in Fig. 1 to Fig. 23, a multi-functional cap according to the present invention includes a crown portion formed to cover the head, a visor 20 extended from a crown portion, and an assistant visor that is 20 detachably coupled to the edge of the crown portion and the edge of the visor 20. In the above, the assistant visor comprises foldable visor units, and fixed units for fixing the assistant visor to the crown portion and the visor 20.

That is, in the present invention, the visor is added to the cap having the same or similar construction as an existing cap, so that an assistant visor can be detachably to the cap. It is thus possible to shield portions that are not shielded by the visor of the cap itself from sunlight.

5 In the above, the assistant visor includes a visor unit that can be folded itself and a fixed unit for fixing the visor unit to the cap.

The assistant visor can be constructed in various shapes in the construction of the visor unit and the fixed unit.

In constructing a visor unit of the assistant visor, for example, as
10 shown in Fig. 3 to Fig. 5, a plurality of narrow hardened plastic plates are overlapped so that they can be extended. At this time, a first support plate and a second support plate are placed at the outmost of the plastic plates. Two or more visor plates are foldably fixed between the first support plate and the second support plate around a shaft, thus forming
15 the visor unit. It is possible to construct an assistant visor having the visor unit. Fixing projections are formed at the lateral end of the visor plates. If the assistant visor is extended, it can be extended by the fixing projections until it is not extended. Thus one wide visor unit can be formed.

20 Moreover, the assistant visor is overlapped so that hardened paper plates can be extended, thus forming the assistant visor having one wide visor unit. At this time, it may be difficult to form the fixing projections in the paper plates. Therefore, the hardened paper plates

are fixed together by binding means such as a Velcro paper using binding means, thus forming one wide visor unit.

The visor unit of the assistant visor can be formed by foldably overlapping plate-like body such as textile or paper as shown in Fig. 7.

5 In this case, the textile or paper is poor in mechanical properties. Thus, there will be a problem that the textile or paper goes down. In order to form one wide visor unit, the first support and the second support are integrally fixed at both sides of the visor plate. The first support and the second support can be connected by a resilient band. Even in a
10 state where the visor plate is extended by the resilient band, the visor unit will not go down. The resilient band is resilient. If the assistant visor is bent, it contracts. If the assistant visor is extended widely, it is extended and folded.

As shown in Fig. 8, the visor unit of the assistant visor can have a
15 plane state so that the plate-like body such as textile or paper can be folded. One end of the visor unit is converged to one point to form the overlapping element lie a fan. In this case, In this case, the textile or paper is poor in mechanical properties. Thus, there will be a problem that the textile or paper goes down. In order to form one wide visor unit,
20 the first support and the second support are integrally fixed at both sides of the visor plate. The first support and the second support can be connected by a resilient band. Even in a state where the visor plate is extended by the resilient band, the visor unit will not go down. The

resilient band is resilient. If the assistant visor is bent, it contracts. If the assistant visor is extended widely, it is extended and folded.

As shown in Fig. 19, the visor unit of the assistant visor may include an assistant visor having a shaft center. In the above, an insertion pin integrally formed with the shaft center is inserted into the insertion groove formed in the crown portion. The plurality of the support shafts are hinged to the shaft center. Thus, these support shafts foldably support the visor membrane. Furthermore, in Fig. 20, a shaft fixed plate is formed instead of the shaft center. The support shafts are fixed to the shaft fixed plate. The shaft fixed plate is detachably fixed to the edge of the crown portion of the cap by means of Velcro paper, etc.

As shown in Fig. 21, the visor unit of the assistant visor includes a plate-like body and supports for supporting the plate-like body. One lateral end of the support is variably fixed to the rail unit that is detachably fixed to the end of the crown portion. The rail unit has a groove that is extended in the length direction so that the supports can be varied. The supports are folded along the groove. Accordingly, as the plate-like body attached to the supports is extended, one wide visor unit is formed. The plate-like body may be textile, paper, plastic film, etc.

As shown in Fig. 22, the visor unit of the assistant visor includes a plate-like body and supports for supporting the plate-like body. One

lateral end of the support is variably fixed to the rail unit that is detachably fixed to the end of the crown portion. In the rail unit, a ring formed at the end of the support penetrates the rail. Thus, the supports are folded while being varied along the rail. Accordingly, as the plate-like body attached to the supports is extended, one wide visor unit is formed. The plate-like body may be textile, paper, plastic film, etc.

As shown in Figs. 1 to 8, the visor unit of the assistant visor includes a visor pinchcock unit into which the edge of the visor can be inserted, and a crown pinchcock unit into which the edge of the crown portion can be inserted. The visor pinchcock unit of the fixed unit is fixed to the edge of the visor and serves to fix the assistant visor to the cap. Furthermore, the crown pinchcock unit is fixed to the edge of the crown portion and serves to fix the assistant visor to the cap. As shown in Fig. 3, the visor pinchcock unit is integrally fixed to the first support plate of the assistant visor and includes a coupling piece, a coupling groove and a guide slope face.

Therefore, the edge of the visor inserted into the visor pinchcock unit is inserted into the coupling groove along the guide slope face and contacts the coupling piece so that it is prevented from deviating. Therefore, it is possible to fix one side of the assistant visor to the edge of the visor. The crown pinchcock unit also has a shape similar to the visor pinchcock unit and serves the same function as the visor pinchcock unit. That is, the crown pinchcock unit is integrally fixed to the second

support plate of the assistant visor, as shown in Fig. 3, and includes a coupling piece, a coupling groove and a slope guide face. Therefore, the edge of the crown portion inserted into the crown pinchcock unit is inserted into the coupling groove along the slope guide face and contacts 5 the coupling piece, so that the crown portion is prevented from deviating. Therefore, the other side of the assistant visor can be fixed to the edge of the crown portion. Accordingly, the assistant visor has one end fixed by the visor pinchcock unit and other side fixed by the crown pinchcock unit. Therefore, the whole assistant visor is detachably fixed to the cap. 10 The state fixed thus is shown in Fig. 1 and Fig. 2. Fig. 1 shows a state where the assistant visor is unfolded and Fig. 2 shows a state where the assistant visor is folded.

As shown in Fig. 9 to Fig. 12, the fixed unit of the assistant visor includes an insertion groove into which an insertion pin integrally formed 15 with an assistant visor is inserted, two or more clips fixed to one side of the assistant visor, and a pair of zippers each having one side fixed to the surface of the crown portion and other side fixed to the assistant visor so that the zippers can be coupled each other. Therefore, as shown in Fig. 11, the insertion pin integrally formed with the overlapping 20 element of the assistant visor is inserted into the insertion groove formed in the crown portion. The clips fixed to one side of the assistant visor is fixed to the edge of the visor 20 of the cap. Also, the zippers are coupled each other. Thus, the cap and the assistant visors can be

detachably fixed each other at three or more places.

As shown in Fig. 13 and Fig. 14, the visor unit of the assistant visor further includes a pair of Velcro papers whose edges are coupled. Therefore, as shown in Fig. 14, after the insertion pin is first inserted 5 into the insertion groove, the zippers are coupled. The first Velcro paper that is fixed to an assistant visor at one side of the assistant visors attached in pair around the cap, and the second Velcro paper fixed to the assistant visor at the other side are coupled. Thus, the assistant visor can be closely fixed to the cap around the cap.

10 As shown in Fig. 16, the fixed unit of the assistant visor includes an insertion groove into which an insertion pin integrally formed with the assistant visor is inserted, and a pair of Velcro papers each having one side fixed to the surface of the crown portion and other side fixed to the assistant visor so that the pair of the Velcro papers can be coupled each 15 other. As shown in Fig. 17, the insertion pin fixed to the overlapping element of the assistant visor is inserted into the insertion groove formed in the crown portion. The Velcro paper at one side of the assistant visor is coupled to the Velcro paper of the visor of the cap. At the same time, the Velcro paper at the other side of the assistant visor is 20 coupled to the Velcro paper fixed to the crown portion of the cap. Thus, as shown in Fig. 18, the assistant visor can be detachably fixed each other at three or more places against the cap.

As shown in Fig. 19 to Fig. 23, assistant visors according to

another embodiment of the present invention can be provided.

In Fig. 19, two or more pinchcocks are formed so that the visor unit can be formed more widely. In the above, there are formed two or more pinchcocks at which the visor unit that is folded is converged.

5 Thus, a more wide visor unit can be formed. An insertion pin inserted into the insertion groove of the crown portion is formed at one side of the fixed unit. The second zipper is attached to one edge of the visor unit fixed to the fixed unit. The second zipper is coupled to the first zipper and the zipper fixed to the edge of the crown portion. As a result,

10 an assistant cap window can be detachably coupled to the cap. Furthermore, a Velcro paper is attached to the edge of the visor unit that corresponds to the edge to which the second zipper is fixed. The Velcro paper is coupled to the Velcro paper of the visor unit of the assistant cap window having the same construction that is detachably in

15 the direction opposite to the cap. As shown in Fig. 20, when the cap is attached, edges of the visor unit are fixed one another. Resultantly, the visor unit can be firmly fixed to the cap.

According to another embodiment of the present invention, there is provided an assistant visor as shown in Fig. 21 and Fig. 22. The 20 assistant visor is means for foldably fixing the visor unit within the rail groove formed in the rail plate. The variable holder is inserted into the assistant visor and the assistant visor is variably fixed within the rail groove. The visor unit is fixed to the variable holder. Thereby, the

visor unit can be foldably constructed. At this time, the visor unit can be made using all kinds of plate-like body such as plastic film, paper and textile. A third zipper is integrally fixed to both end edges of the visor unit. As shown in Fig. 22, by coupling the third zippers, the assistant 5 visor is completely surrounded by around the crown portion, thus forming one wide visor unit. Furthermore, the visor unit is foldable. The rail plate in which the visor unit is formed is detachably attached to the crown portion, so that the whole visor unit can be detachably constructed to the cap. By adding the assistant visor if needed, the 10 visor can be separated from the cap.

Moreover, instead of the rail plate and the variable holder, the visor may include a rail plate and a rail hanger ring that is variably fixed along the rail formed in the rail plate as shown in Fig. 23. In the same manner as the variable holder in the rail plate, the visor unit is fixed to 15 the rail hanger ring. Thereby, the visor unit can be foldably constructed. At this time, the visor unit can be made using all kinds of plate-like body such as plastic film, paper and textile. A third zipper can be integrally fixed to both end edges of the visor unit.

The rail unit or rail unit of the assistant visor can be detachably 20 attached to the edge of the crown portion by means of the pair of the Velcro paper that can be coupled.

Fig. 1 shows a state where an assistant visor 11 is inserted into the right and left of a visor 20 of a cap and a visor plate 14 is then

extended according to an embodiment of the present invention. Fig. 2 shows a state where the assistant visor 11 inserted into the right and left of the visor 20 is folded and laid on the visor 20 according to an embodiment of the present invention. Fig. 3 is a perspective view 5 illustrating the assistant visor 11 shown in Fig. 1 and Fig. 2 according to an embodiment of the present invention.

Referring to Figs. 1 to 3, if a cap having the visor 20 that is extended toward the front of the forehead is used, an assistant visor 11 is sued in order to protect the sides of the face from sunlight. A user 10 who wears the cap inserts the assistant visor 11 into edges of the left and/or right side of the visor 20. For this, a visor pinchcock unit 16 that can be inserted into the left and/or right edge of the visor 20 is formed in a first support plate 12 of the assistant visor 11. The visor pinchcock unit 16 includes a coupling piece 161 having a guide slope face 163. 15 The left and/or right edges of the visor 20 are easily introduced by the guide slope face 163, inserted into the coupling piece 161 and fixed to a coupling groove 162. The coupling piece 161 is formed deeper than an example shown in Figs. 1 to 3.

After the assistant visor 11 is fixed to the edge of the visor 20, a 20 visor plate 14 of a fan shape extended from the first support plate 12 is extended up to the lateral rear side of a crown portion 10 in a fan shape around a shaft 15. Thereafter, a crown pinchcock unit 17 is inserted into a corresponding cap brim location of the crown portion 10 using the

crown pinchcock unit 17 formed in a second support plate 13. Thus the assistant visor 11 is fixed to the cap firmly. Like the visor pinchcock unit 16, the crown pinchcock unit 17 includes a coupling piece 171 having a slope guide face 173. Accordingly, a coupling groove 172 is formed 5 within the crown pinchcock unit 17. The crown pinchcock unit 17 shown in Figs. 1 to 3 can be implemented fixedly in one direction, but can be implemented so that it can be folded up and down. Thus, even if one of the assistant visors 11 is used, the crown pinchcock unit 17 can be inserted in any direction. As another embodiment, the crown pinchcock 10 unit 17 cannot be formed in manufacturing. Even in this case, the assistant visor 11 can be used without right and left side.

In an embodiment shown in Fig. 3, the visor plate 14 consists of a plurality of hardened plastic visor plates 14. A fixing projection 141 of a structure in which the visor plates 14 can be latched one another is 15 formed at the top and bottom between the continuous visor plates 14. Therefore, if a user extends the assistant visor 11 with it inserted into the visor 20 in a state where the user holds the support piece 20, the assistant visor 11 is gradually extended from the visor plate 14 located at the bottom by means of the fixing projection 141 of the visor plate 14 20 and is thus extended up to the visor plate 14 located at the bottom. The length of the visor plates 14 can be the same, but may be different, if needed. For example, it would be preferred that the length of the visor plate 14 that is located around the visor 20 is relatively longer than other

visor plates 14. It is also preferable that the visor plate 14 is thicker as it is close to the shaft 15.

As another embodiment, the visor plate 14 can be made of a plurality of stiff paper materials, as shown in Fig. 6. A Velcro paper 143 that is commercially provided as "Scotch tape" is adhered so that the visor plates 14 can be attached at the bottom between the continuous visor plates 14.

It is to be understood that the material of the visor plates 14 shown in Fig. 6 may be plastic or stiff fiber. Furthermore, the first support plate 10 and the second support plate 13 of the assistant visor 11 shown in Fig. 1 to Fig. 6 can be implemented using a plastic material in the same manner as the visor plate 14. In this case, it is preferred that a thickness of the first support plate 10 and the second support plate 13 is thicker than that of the visor plate 14. Also, the material of the first support plate 10 and the second support plate 13 may be a metal or nonferrous metals. In this case, a thickness of the first support plate 10 and the second support plate 13 may be similar to that of the visor plate 14.

The axis of the assistant visor 11 shown in Figs. 1 to 3 and Fig. 6 can be fixed by a hanging structure having handing protrusions 153 and handing grooves 123 as shown in Fig. 4 and Fig. 5 even in a state where the visor plate 14 of the assistant visor 11 is arbitrarily extended or folded and is laid on the visor 20.

Fig. 4 is a dismantled perspective view of the assistant visor 20 shown in Fig. 3 and Fig. 5 is a cross-sectional view of the shaft 15 shown in Fig. 3 and Fig. 4.

Referring to Figs. 4 and 5, a second shaft rod 152 having two resilient holes 151 is provided at the swivel axis of the second support plate 13. Two handing protrusions 153 are formed in the length direction of the second shaft rod 152. The two handing protrusion 153 are located in the resilient surface of the second shaft rod 152 formed by the resilient holes 151. A coupling hole 36 is formed at the bottom of the second shaft rod 152. The second shaft rod 152 is inserted into the through hole 142 of the plurality of the visor plates 14. The second shaft rod 152 is inserted into the through hole 122 of the first shaft rod 121 provided at the swivel shaft of the first support plate 12. A washer 112 is inserted into the second shaft rod 152 and a pin 111 is inserted into the coupling hole 154 of the second shaft rod 15. The shaft 15 is rotatably fixed to the assistant visor 11. A plurality of, for example eight handing grooves 123 are formed in the inside of the through hole 36 of the first shaft rod 121. Thus, two handing protrusion 32 of the second shaft rod 152 are latched to the handing grooves 123 and the visor plates 18, 18a and 18b of the assistant visor 11 are fixed even with it laid on the visor 20.

Meanwhile, the assistant visor can be fabricated to have another shape.

Fig. 7 shows a state where an assistant visor 21 is inserted into the visor 20 and a visor plates 213 is extended according to still another embodiment of the present invention. Fig. 8 shows a state where a visor plate 313 is extended according to still another embodiment of the 5 present invention.

Fig. 7 shows that the visor plates 213 is formed using a fiber or a paper of a flexible tube. The visor plates 213 is foldable. Fig. 8 shows that the visor plate 313 is formed using a fiber or paper of a plane shape.

Referring to Fig. 7, the visor plates 213 of the assistant visor 21 10 are sealed by the overlapping element 216, thus having a fan shape. The edges of both sides of the visor plates 213 are adhered to the first support 211 and the second support 212. A visor pinchcock unit 214 is integrally formed at each of the top, middle and bottom of a first support 211. A visor pinchcock unit 215 is integrally formed even at each of the 15 top, middle and bottom of a second support 212. A pair of snap buttons 218 and 219 are provided at the respective tops of pinchcock units 214 and 215 corresponding to the top, middle and bottom of the first support 211 and the second support 212. If the assistant visor 21 is not used or 20 is laid on the visor 20, it can be fixed using the pair of the snap buttons 218 and 219.

Furthermore, a resilient band 217 is disposed at the upper bottom of the first support 211 and the second support 212. The resilient band 217 serves to prevent the visor plates 213 from going down. If

necessary, the assistant visors 21 are lumped and wound.

Referring to Fig. 8, the visor plate 313 made of a paper material is combined by the overlapping element 316 to have a fan shape. The edge of the visor plate 313 is sealed by the first support 311 and the second support 312 made of plastics. A visor pinchcock unit 314 is integrally formed at each of the top, middle and bottom of the first support 311 in the same manner as Fig. 7. A crown pinchcock unit 315 is integrally formed even at each of the top, middle and bottom of the second support 311. A pair of snap buttons 318 and 319 are provided in each of the tops of the pinchcocks 314 and 315 corresponding to the top, middle and bottom of the first support 311 and the second support 312 as in Fig. 7. Thus, a user can fix the cap using the pair of the snap buttons 318 and 319 when the assistant visor 31 is not used or laid on the visor 20.

Moreover, sewing lines 317 for protecting the visor plate 313 are each formed in the top, middle and bottom of the visor plate 313 located between the first support 311 and the second support 312. In Fig. 8, the fiber material of the visor plate 313 may include a span component so that the visor plate is flexible.

Furthermore, the overlapping elements 216 and 316 of Fig. 7 and Fig. 8 can be implemented using the shaft 15 in which the first support plate 12 and the second support plate 13 as shown in Fig. 4 and Fig. 5 are formed. In this case, the visor plates 213 and 313 of the assistant

visor 11 are arbitrarily extended or folded by means of the handing protrusions 153 and the handing grooves 123 and are then fixed even with them laid on the visor 20.

Fig. 9 is a dismantled perspective view illustrating a multi-functional cap according to another embodiment of the present invention.

Fig. 10 shows an assistant visor applied to the multi-functional cap according to another embodiment of the present invention. Fig. 15 shows an assistant visor according to still another embodiment. Fig. 11 shows a state where the assistant visor is installed at the side of the crown portion in the multi-functional cap shown in Fig. 9. Fig. 12 shows a state where the assistant visor is stacked on the crown portion in the multi-functional cap of Fig. 11.

The multi-functional cap according to the present invention includes a crown portion 10 that is put on the head, a visor 20 that is extended toward the front of the crown portion 10, and an assistant visor 41 that can be installed in or separated from the crown portion 10 and can be extended like a fan.

Insertion grooves 101 are each formed at the right and left of the crown portion 10. First zippers 102 are each formed at the right and left of the crown portion 10. A Velcro paper 103 is formed between the insertion groove 101 and the first zipper 102. The assistant visor 41 is inserted into the insertion groove 101.

The assistant visor 41 inserted into the insertion groove 101 can

be implemented in various modes.

The assistant visor according to a first embodiment will be explained.

Referring to Fig. 10, the assistant visor includes an insertion pin 411 inserted into the insertion groove 101 of the crown portion 10, a support bar 412 rotatably hinged to the end of the insertion pin 411, wherein a clip 413 coupled to the edge of the visor 20 is disposed in the support bar 412, a visor unit 414 having its one edge connected to the support bar 412 and extended around the shaft in a fan shape, a second zipper 415 formed at the other edge of the visor unit 414 and coupled to the first zipper 102 of the crown portion, and a Velcro paper 416 disposed at the top of the visor unit 414 and attached to the Velcro paper 103 of the crown portion.

This visor unit 414 can be formed using a fiber material or plastics of a flexible tube shape, a paper material having a watertight function or the like. In the above, the end of the insertion pin 411 is formed more thickly. If the insertion pin 411 is inserted, it is not deviated from the insertion groove 101. The insertion pin 411 may have a circular pin shape whose diameter is constant.

Referring to Fig. 15, the assistant visor according to the second embodiment includes an insertion pin 611, a support bar 612 having a clip 613 disposed in, a visor unit 614, a second zipper 616 connected to the first zipper 102, and a Velcro paper 617 that can be attached to the

Velcro paper 103. In the above, the rear side of the visor unit 614 is supported by several assistant support bars 615. The assistant support bars 615 are overlapped to fold the visor unit.

Referring to Fig. 11, after the insertion pin 411 of the assistant visor 41 is inserted into the insertion groove 101 of the crown portion 10, the clip 413 of the support bar 412 is inserted into the visor 20. The second zipper 415 is coupled to the first zipper 102 of the crown portion 10. Then, the assistant visor 41 is extended as shown in the lateral portion of the crown portion 10.

Referring to Fig. 12, the assistant visor 41 is raised up and is overlapped with the crown portion 10 in the state shown in Fig. 11. In this case, the Velcro paper 416 of the visor unit 414 is joined to the Velcro paper 103 of the crown portion 10. The assistant visor 41 is stacked at the side of the crown portion 10.

Fig. 13 is a dismantled perspective view illustrating a multi-functional cap according to the second embodiment of the present invention. Fig. 14 shows a state where the assistant visor 51 is extended forward in the multi-functional cap shown in Fig. 13.

Referring to Fig. 13, the multi-functional cap includes a crown portion 10 that is put on the head, a visor 20 that is extended toward the front of the crown portion 10, and an assistant visor 51 that is disposed in the crown portion 10, separated and extended in a fan shape. At this time, the visor 20 is significantly short and the multi-functional cap

maintains a shape called a totally crown cap.

A pair of insertion grooves 101 are formed at the front of the crown portion 10. A first zipper 102 is formed at the right and left of the crown portion 10. Each of the assistant visor 51 includes an insertion pin 511 inserted into the insertion groove 101 of the crown portion 10, a visor unit 512 disposed in each insertion pin 511 and extended in a fan shape, a second zipper 513 formed at the other edge of each of the visor units 512 and coupled to the first zipper 102, and a Velcro paper 514 fixed to one edge of each of the visor units 512.

In this structure, after the insertion pin 511 of the assistant visor 51 is inserted into the insertion groove 101 of the crown portion 10, the second zipper 513 is coupled to the first zipper 102 of the crown portion 10. If the Velcro paper 514 of one assistant visor 51 is coupled to the Velcro paper 514 of the other assistant visor 51, the visor unit 512 keeps extended as shown in Fig. 14. At this time, as the visor unit 512 is extended forward from the visor 20, it serves as a large visor 20.

Fig. 16 is a dismantled perspective view illustrating a multi-functional cap according to still another embodiment of the present invention. Fig. 17 shows a state where the folded assistant visor 71 is placed on the visor 20 in the multi-functional cap of Fig. 16. Fig. 18 shows a state where the assistant visor 71 is extended laterally in the multi-functional cap of Fig. 16.

Referring to Figs. 17 and 17, the multi-functional cap according to

still another embodiment includes a crown portion 10 that is put on the head, a visor 20 that is extended forward from the crown portion 10, and an assistant visor 71 that is disposed in or separated from the crown portion 10 and extended in a fan shape.

5 A pair of insertion grooves 101 are formed at the right of the crown portion 10. Buttons 201 and 105 that are coupled and separated are disposed at the front upper side of the crown portion 10 and the visor 20. Also, a Velcro paper 202 is coupled to the front of the crown portion 10 and the Velcro paper 104 is coupled to the rear of the crown
10 portion 10.

The assistant visor 71 includes an insertion pin 711 inserted into the insertion groove 101 of the crown portion 10, a visor unit 712 that is disposed in the insertion pin 711 and is extended in a fan shape, and Velcro papers 714 and 713 that are formed at one and the other edges of
15 the visor unit 712 and can be coupled to the Velcro papers 202 and 104 coupled to the crown portion.

In the above structure, after the insertion pin 711 of the assistant visor 71 is inserted into the insertion groove 101 of the crown portion 10, the assistant visor 71 is folded and is placed on the visor 20, it results in
20 that as shown in Fig. 17. In this state, if the buttons 105 of the crown portion 10 are inserted into the buttons 201 of the visor 20, the folded assistant visor 71 is hided between the crown portion 10 and the visor 20.

Meanwhile, in a state where the insertion pin 711 is inserted into

the insertion groove 101, if the Velcro paper 714 is joined to the Velcro paper 202 and the Velcro paper 713 is joined to the Velcro paper 104 of the crown portion 10, the visor unit 712 is extended as shown in Fig. 18. At this time, as the visor unit 712 is extended toward the side of the 5 crown portion 10, it severs as a large visor 20.

Furthermore, as shown in Fig. 19 to Fig. 23, assistant visors 81 and 91 can be provided.

Fig. 19 shows an assistant visor 81 including a shaft center 812. An insertion pin 811 integrally formed with the shaft center 812 is 10 inserted into the insertion groove 101 formed in the crown portion 10. A plurality of support shafts 813 are hinged to the shaft center 812. The support shafts 813 foldably support the visor membrane 814. Furthermore, a Velcro paper 815 is fixed to one end of the visor membrane 814 and is coupled to a Velcro paper fixed to the visor 20. 15 Thus, one end of the visor membrane 814 is directly fixed to the cap. Coupling buttons 816 are fixed to the other ends of the visor membrane 814 and are coupled to the coupling buttons fixed to the edge of the crown portion 10. Thus, the other side of the visor membrane 814 is directly fixed to the cap.

20 Therefore, the assistant visor 81 is detachably fixed to the cap. In the assistant visor 81 itself, the support shafts 813 are hinged to the shaft center 812 around the shaft center 812. Therefore, the visor membrane 814 has a foldable structure. Accordingly, the assistant visor

81 is extended by maximum with it coupled to the cap, thus serving as a visor function, i.e., a function of shielding sunlight. After the assistant visor 81 is separated from the cap, it can be in the basis of the shaft center and can be thus easily carried.

5 Fig. 20 shows a variant of the assistant visor 81 shown in Fig. 19. In Fig. 20, a plurality of support shafts 813 are fixed to the shaft fixed plate 817 that is formed of soft plastic instead of one the shaft center. Visor membranes 814 are foldably fixed to the support shafts 813 around the support shaft 813. Coupling buttons 818 are integrally fixed to both 10 side end portions of the visor membrane 814 and fix both ends of the visor membranes 814 that are detachably fixed to both sides of the cap. Therefore, the visor membranes 814 that are fixed one another are supported by the visor 20 to form a wide visor unit around the cap. The shaft fixed plate 817 can be detachably attached to the edge of the 15 crown portion 10 by means of the Velcro paper.

Referring to Fig. 21 and Fig. 22 according to another embodiment of the present invention, there is provided an assistant visor 91. The assistant visor 91 is means for foldably fixing the visor unit 914 within a rail groove 912 formed in a rail plate 911. The assistant visor 91 is 20 variably fixed within the rail groove 912. A variable holder 913 is inserted into the assistant visor 91. The visor unit 914 is fixed to the variable holder 913 and thus foldably constitutes the visor unit 914.

At this time, the visor unit 914 may be formed using all kinds of

plate-like body such as plastic film, paper and textile. A third zipper 915 is integrally fixed to both end edges of the visor unit 914. By coupling the third zippers 915 by zippers, as shown in Fig. 22, the assistant visor 91 is surrounded around the crown portion 10 to form one large visor 5 unit. Moreover, the visor unit 914 is foldable and the rail plate 911 in which the visor unit 914 is formed is detachably coupled to the crown portion 10. Thus, the visor unit 914 can be detachably constructed against the cap. An assistant visor 91 can be added to or separated from the cap, if needed.

10 Furthermore, instead of the rail plate 911 and the variable holder 913, a rail plate 916 as shown in Fig. 23, and a rail hanger ring 917 that is variably fixed along the rail formed in the rail plate 916 can be used. In the same manner as the holder 913, the visor unit 914 is fixed to the rail hanger ring 917 and the visor unit 914 can be thus foldable. At this 15 time, the visor unit 914 can be formed using all kinds of plate-like body such as plastics, paper and textile. The third zipper 915 can be integrally fixed to both end edges of the visor unit 914.

The rail unit of the assistant visor 91 can be detachably attached to the edge of the crown portion by means of a pair of Velcro papers that 20 can be coupled each other. Furthermore, the rail plates 911 or the rail plates 916 consist of soft plastic plates. Thus, the rail plates 911 or the rail plates 916 can be carried easily with them separated from the cap. Even with the rail plates 911 or the rail plates 916 attached to the cap,

they can be adhered to the surface of the crown portion along the edge of the smooth crown portion in which a circular round of the cap is formed.

The assistant visor can shield the side of the face that can be not solved by a common visor from sunlight and can solve disadvantages of the cap. Furthermore, color or paintings can be drawn on the assistant visor 20. Functional and aesthetic factors can be added to the visor by effectively using the feathers such a chicken or a duck. Therefore, the assistant visor 20 can be used for card section play that represents decoration effect and a natural beauty.

Furthermore, the assistant visor 20 can be sewed to the visor 20 and can be integrated with the cap without fixed it to the visor pinchcock unit.

15 Industrial Applicability

As described above, the visor according to the present invention can be used for shielding sunlight in the open air and can be freely detached in case of rain. Furthermore, aesthetic sense on appearance can be added.

20 While the present invention has been described with reference to the particular illustrative embodiments, it is not to be restricted by the embodiments but only by the appended claims. It is to be appreciated that those skilled in the art can change or modify the embodiments

without departing from the scope and spirit of the present invention.